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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/646,489	11/02/2000	Edward J. Naclerio	770P009665-U	8816

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FAIRFIELD, CT 06824

EXAMINER

WOO, RICHARD SUKYOON

ART UNIT	PAPER NUMBER
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3629

DATE MAILED: 01/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/646,489

Applicant(s)

NACLERIO

Examiner

Richard Woo

Art Unit

3629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 October 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2 and 4-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2 and 4-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1) Applicant's arguments, filed October 2, 2003, with respect to rejections under 35 USC 103 have been fully considered but they are not persuasive.

-- In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, both Brown and Bergum et al. include a memory device as one of the key components in each invention. Since Bergum et al. teaches the security improvement with respect to the memory device and digital encryption/decryption methods, the purpose disclosed by Bergum et al. may be incorporated into the safety measure of Brown to prevent an unauthorized user from accessing the PSD improve the security of the device by providing a greater security in storing and utilizing encryption/decryption keys when the device loses power, or is tampered with.

-- In response to applicant's argument that Bergum et al. is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the

claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). See the reason as cited above.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

2) The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 103

3) Claims 2 and 4-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown (EP 0376487) in view of Bergum et al. (US 5,249,227).

W.R.T. Claims 2 and 12:

Brown discloses a method comprising the steps of:

storing the data (i.e. bitmap in Fig. 4A) in a first memory (106) not having a back-up battery (Fig. 3);

storing the data in a second memory (104) having a back-up battery; and
temporarily storing the data in a third memory (102) (with no back-up battery).

However, Brown does not specifically disclose the method including:

storing the encryption key within the second memory;

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encrypting the body of data by the cryptographic engine with respect to the encryption key;

storing the encrypted body of data in the first memory;

upon power-up of the PSD decrypting the encrypted body of data with the cryptographic engine;

temporarily storing the decrypted body of data in a third memory, wherein upon power down of the PSD the decrypted body of data is lost; and

in the event of tampering with the PSD, removing power from the second memory and the third memory resulting in a loss of the encryption key and the decrypted body of data.

Bergum et al. teaches, for an encrypted device to improve security, that the device comprises:

a first memory (105); a second memory (106);

a third memory (103) not having a backup battery and storing temporarily the data;

wherein the body of data includes cryptographic keys;

an anti-tamper device to interrupt power to the second memory device and the third memory device (cols. 3-4); and

a detection device adapted to detect the tempering and send a message via a communications channel (113) to an authority, for the purpose of:

storing the data encryption key in a second memory (106);

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encrypting the body of data by the cryptographic engine with respect to the encryption key; and

removing power from the second and third memories in the event of tampering with the device.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the invention of Brown such that the invention includes well known digital encryption/decryption methods and an anti-temper device to interrupt power to the second memory device and the third memory device, as taught by Bergum et al. for the purpose of preventing an unauthorized user from accessing the PSD (digital encryption/decryption method) and providing a greater security in storing and utilizing encryption/decryption keys when the device loses power, or is tampered with (anti-tempering device).

W.R.T. Claims 13-21:

The modified Brown further discloses the method comprising:

interrupting power to the second memory device and the third memory device (cols. 3-4 in Bergum et al.);

minimizing an amount of back-up battery power consumed (Only the second memory has the back-up battery, no battery for the first and third memories);

generating a postal indicia and printing the indicia based on the data (see Fig. 2 in Brown);

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transmitting a message (via communication 98 in Fig. 2 in Brown) to an authority;
maximizing a life of battery powering the second memory (obviously, smaller the memory, less the power it consumes); and
transmitting a message when the PSD is tampered with that causes the second memory device loses data.

W.R.T. Claims 4 and 9:

Brown further discloses a postal security device comprising:
a secure housing;
a first nonvolatile memory (106) without a backup battery;
a second NVM (104) having a backup battery;
a third memory (102) not having a backup battery and storing temporarily the data; and
wherein the body of data includes cryptographic keys and bit images (See Figs. 4A-D).

However, Brown does not specifically disclose the device including:
the first NVM device storing the encryption key;
the second NVM having a storage capacity only large enough to store an encryption key;
an encryption engine adapted to encrypt the body of data with respect to the encryption key;

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the third memory device temporarily storing a body of decrypted data while PSD is powered on, wherein upon power down of the PSD the decrypted body of data is lost; and

wherein the PSD powers down, the body of decrypted data temporarily stored in the third memory is lost.

Bergum et al. teaches, for an encrypted device to improve security, that the device comprises:

a first memory (105); a second memory (106);

a third memory (103) not having a backup battery and storing temporarily the data;

wherein the body of data includes cryptographic keys;

an anti-tamper device to interrupt power to the second memory device and the third memory device (cols. 3-4); and

a detection device adapted to detect the tempering and send a message via a communications channel (113) to an authority, for the purpose of:

storing the data encryption key in a second memory (106);

encrypting the body of data by the cryptographic engine with respect to the encryption key; and

removing power from the second and third memories in the event of tampering with the device.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the invention of Brown such that the invention includes well known digital encryption/decryption methods and an anti-temper device to interrupt power to the second memory device and the third memory device, as taught by Bergum et al. for the purpose of preventing an unauthorized user from accessing the PSD (digital encryption/decryption method) and providing a greater security in storing and utilizing encryption/decryption keys when the device loses power, or is tampered with (anti-tempering device). Additionally, it would have been obvious at the time the time the invention was made to a person having ordinary skill in the art to make the second NVM having a storage capacity only large enough to store an encryption key as an engineering expedient for the purpose of providing the PSD with a cost-effective memory device (a bigger memory device usually means more expensive) and the improved battery life (a memory with smaller size consumes less power).

W.R.T. Claims 5-8, 10-11:

The modified PSD of Brown further discloses the invention including:

a means for generating a postal indicia and printing the indicia based on the data (see Fig. 2 in Brown);

an anti-tamper device to interrupt power to the second memory device and the third memory device (cols. 3-4 in Bergum et al.); and

a means for transmitting a message (via communication 98 in Fig. 2 in Brown) to an authority when the PSD is tempered with.

Conclusion

- 4) **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

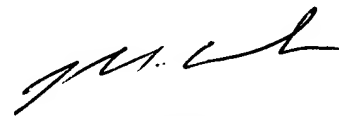
- 5) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard Woo whose telephone number is 703-308-7830. The examiner can normally be reached on Monday-Friday from 8:30 AM -5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Weiss can be reached on 703-308-2702. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0861.



Richard Woo
Patent Examiner
GAU 3629
January 8, 2004



JOHN G. WEISS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600